

LIFE Waste2Protein - New insect protein to replace soy and fish meal



Over the next 25 years, the demand for animal protein is projected to increase by 75% compared to 2007, due to population growth and the increase in meat consumption. Today, 70% of the planet's agricultural area is used to produce animal feed, with the increasing demand for livestock leading to a shortage of food sources.

Studies have shown that insect protein can effectively replace conventional protein sources like soy and fish meal. The rising demand for fish meal has contributed to overfishing and biodiversity loss, while soy cultivation often leads to deforestation. This way, insect farming provides an environmentally friendly solution to these critical problems.

Insect protein production from organic residues: a decentralised and modular solution

The LIFE Waste2Protein project promotes the use of organic residues from supermarkets, food industry, agriculture, etc. as a resource to produce insect protein from larvae of the Black Soldier Flies. The project aligns with the EU's waste and circular economy policies by closing the loop and using resources in an efficient and sustainable way.

Two of the key innovations introduced by the project are:

- Decentralised facilities - can be co-located with farmers. They are smaller and can be operated more efficiently.
- Modular farms - Insect farms can be adjusted in size, being adaptable to different scales and needs.

This model adds a new dimension to the existing insect farming market. Based on the current demand from farmers, this approach was a welcome innovation in the industry.

Before the LIFE project, madebymade was recycling 100 kilos of bio-waste into insect protein. Today, thanks to LIFE's support, they process 20 to 30 tonnes of bio-waste per day in a single insect farm.

The company currently sells in Germany, Austria, Switzerland and Italy. Over the next two years, they plan to establish 20 new units, starting with facilities in Germany (particularly Bavaria), Austria, and other European countries. Their goal is to expand sales across Europe, including France, Czech Republic and Hungary. The technology is climate-independent and applicable through Europe. Many European countries face similar challenges regarding food waste management and dependence on feed and fertilisers.

This solution has been distinguished with the [2024 LIFE Award](#) for Circular Economy and Quality of Life. Motivated by the recognition and support received from the LIFE Programme, LIFE Waste2Protein team submitted a proposal for a new LIFE project.

Quote from the Coordinating Beneficiary: *"I don't think we as a company would be where we are now without the LIFE project. It supported the company in developing and scaling a prototype to an industrial pilot scale facility that has a large positive influence on the environment. And where we are now two years after the LIFE project is that we have a commercial product, we're now selling and multiplying across Europe. And so, funding this LIFE project was important for us to go from an idea to an almost market-ready project product. Now we see the fruits of it, in the progress of planning implementation of facilities in Germany, Austria and other European countries which recycle organic byproducts and produce sustainable inputs for agriculture."* – Moritz Gold, Head of R&D madebymade (LIFE Waste2Protein).

Learn more:

Project Acronym: LIFE Waste2Protein

Reference: LIFE18 ENV/DE/000011

[Project Website](#)

Follow us at:

